

CLAIMS

What is claimed is:

1. An assembly comprising:
a circuit board;
a socket connected to said circuit board and comprising a surface having a plurality of receptacles;
an electronic device having a plurality of connector pins disposed in the receptacles of said socket;
a heat sink in thermal contact with said electronic device, wherein said heat sink has a footprint extending beyond both said electronic device and said socket;
a locking lever pivotally connected to an arm extending from said socket to a position outside of the footprint of said heat sink.
2. The assembly of claim 1 further comprising an alignment cage connected to said electronic device and arranged to interface with said socket.
3. The assembly of claim 2 wherein said alignment cage further comprises a plurality of alignment tabs protruding therefrom.
4. The assembly of claim 3 wherein the plurality of alignment tabs extend from said alignment cage past the plurality of connector pins.
5. The assembly of claim 1 further comprising a plurality of alignment pins attached to said heat sink and arranged to interface with a corresponding number of holes in said circuit board.
6. The assembly of claim 5 wherein the plurality of alignment pins extend from said heat sink past the plurality of connector pins.
7. The assembly of claim 1 wherein said locking lever has a first position wherein the electronic device is locked to the socket and a second position

wherein the electronic device can be removed from the socket; wherein said locking lever is at an angle to said circuit board in both the first and second positions.

8. The assembly of claim 7 further comprising a tab that prevents engagement of said electronic device and said socket when said locking lever is in the first position.

9. A heat sink assembly comprising:

a heat sink;

an alignment cage connected to said heat sink, wherein said alignment cage comprises a receptacle and a plurality of locating tabs, wherein the plurality of locating tabs surround the receptacle and extend from said alignment cage; and

a plurality of alignment pins connected to and extending from said heat sink.

10. The heat sink assembly of claim 9 wherein said alignment cage further comprises a pair of clips operable to retain a processor chip.

11. The heat sink assembly of claim 9 wherein said heat sink has a footprint extending beyond said alignment cage.

12. The heat sink assembly of claim 9 wherein said plurality of alignment pins extend past the plurality of locating tabs.

13. The heat sink of claim 9 wherein the plurality of locating tabs are arranged so as to interface with corresponding slots disposed on a socket.

14. The heat sink of claim 9 wherein said plurality of alignment pins are arranged to interface with corresponding holes through a circuit board.

15. A method for installing an electronic device to a socket mounted to a circuit board, the method comprising:

attaching the electronic device to a heat sink, wherein the heat sink has a footprint extending beyond the electronic device;

inserting a plurality of connector pins extending from the electronic device into a plurality of receptacles disposed in the socket, wherein the heat sink has a footprint extending beyond the socket; and

actuating a locking lever to lock the electronic device to the socket, wherein the locking lever is connected to an arm extending from the socket to a position outside of the footprint of the heat sink.

16. The method of claim 15 wherein the electronic device is attached to the heat sink by an alignment cage arranged to interface with the socket.

17. The method of claim 16 wherein the alignment cage comprises a plurality of locating tabs.

18. The method of claim 17 further comprising interfacing the plurality of locating tabs with a plurality of slots disposed on the socket.

19. The method of claim 18 further comprising interfacing a plurality of alignment pins protruding from the heat sink with corresponding holes in the circuit board.

20. The method of claim 19 wherein the plurality of alignment pins interface with the holes before the plurality of locating tabs interface with the plurality of slots, wherein both the alignment pins and the locating tabs interface before the plurality of connector pins are inserted into the plurality of receptacles.

21. A system comprising:

means for aligning pins of an electronic device with receptacles of a socket mounted to a circuit board, wherein the electronic device is attached to a

heat sink having a footprint extending beyond the electronic device and the socket; and

means for locking the electronic device to the socket, wherein said means for locking extend from said socket to a position outside the footprint of the heat sink.

22. The system of claim 21 further comprising means for aligning the heat sink with the circuit board.

23. The system of claim 22 further comprising means for aligning a cage and the socket, wherein the cage is attached to the heat sink and substantially surrounds the electronic device.

24. The system of claim 23 wherein said means for aligning the heat sink with the circuit board provides alignment between the cage and the socket.

25. The system of claim 24 wherein said means for aligning the cage and the socket provides alignment between the electronic device and the socket.

26. The system of claim 25 wherein said means for aligning pins is not engaged until said means for aligning a cage is engaged.

27. The system of claim 26 wherein said means for aligning a cage is not engaged until said means for aligning the heat sink is engaged.